

Bo Song

List of Publications by Year in descending order

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117
papers

3,541
citations

117571

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161767

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117
all docs

117
docs citations

117
times ranked

1489
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving tensile and compressive properties of magnesium alloy plates by pre-cold rolling. Scripta Materialia, 2012, 66, 1061-1064.	2.6	209
2	Effect of crystal orientation on the mechanical properties and strain hardening behavior of magnesium alloy AZ31 during uniaxial compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 588-593.	2.6	167
3	Improvement of formability and mechanical properties of magnesium alloys via pre-twinning: A review. Materials & Design, 2014, 62, 352-360.	5.1	160
4	Understanding of variant selection and twin patterns in compressed Mg alloy sheets via combined analysis of Schmid factor and strain compatibility factor. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 609, 92-101.	2.6	124
5	Enhancing mechanical properties of Mg-Sn alloys by combining addition of Ca and Zn. Materials and Design, 2015, 83, 736-744.	3.3	118
6	Effect of initial texture on dynamic recrystallization of AZ31 Mg alloy during hot rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 2941-2951.	2.6	102
7	Characteristics of long {10-12} twin bands in sheet rolling of a magnesium alloy. Scripta Materialia, 2014, 74, 96-99.	2.6	102
8	Texture control by {10-12} twinning to improve the formability of Mg alloys: A review. Journal of Materials Science and Technology, 2019, 35, 2269-2282.	5.6	79
9	Correlation Between Texture Variation and Transverse Tensile Behavior of Friction-Stir-Processed AZ31 Mg Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2500-2508.	1.1	73
10	Stability of twins in Mg alloys – A short review. Journal of Magnesium and Alloys, 2020, 8, 66-77.	5.5	70
11	Texture evolution and mechanical properties of AZ31B magnesium alloy sheets processed by repeated unidirectional bending. Journal of Alloys and Compounds, 2010, 489, 475-481.	2.8	69
12	Influence of initial texture on formability of AZ31B magnesium alloy sheets at different temperatures. Journal of Materials Processing Technology, 2011, 211, 1575-1580.	3.1	62
13	Improving tensile and compressive properties of magnesium alloy rods via a simple pre-torsion deformation. Materials and Design, 2015, 83, 270-275.	3.3	59
14	The effects of orientation control via tension-compression on microstructural evolution and mechanical behavior of AZ31 Mg alloy sheet. Journal of Magnesium and Alloys, 2022, 10, 411-422.	5.5	58
15	Enhancing the strength of rolled ZK60 alloys via the combined use of twinning deformation and aging treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 582, 68-75.	2.6	54
16	Strain compatibility effect on the variant selection of connected twins in magnesium. Materials & Design, 2015, 76, 71-76.	5.1	54
17	Cold stamping formability of AZ31B magnesium alloy sheet undergoing repeated unidirectional bending process. Journal of Materials Processing Technology, 2011, 211, 644-649.	3.1	52
18	Improved stretch formability of AZ31 sheet via texture control by introducing a continuous bending channel into equal channel angular rolling. Journal of Materials Processing Technology, 2018, 259, 380-386.	3.1	52

#	ARTICLE	IF	CITATIONS
19	Enhancing stretch formability of rolled Mg sheets by pre-inducing contraction twins and recrystallization annealing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 627, 369-373.	2.6	50
20	Enhancing tensile strength of Cu by introducing gradient microstructures via a simple torsion deformation. <i>Materials and Design</i> , 2016, 90, 545-550.	3.3	50
21	Structural examination of aging precipitation in a Mg-Y-Nd alloy at different temperatures. <i>Materials Characterization</i> , 2011, 62, 535-539.	1.9	47
22	Effect of aging precipitation on mechanical anisotropy of an extruded Mg-Y-Nd alloy. <i>Materials & Design</i> , 2012, 34, 384-388.	5.1	47
23	Tailoring texture and refining grain of magnesium alloy by differential speed extrusion process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 612, 187-191.	2.6	47
24	Evolution of gradient microstructure in an extruded AZ31 rod during torsion and annealing and its effects on mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 689, 78-88.	2.6	47
25	Enhancing the age-hardening response of rolled AZ80 alloy by pre-twinning deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 680, 152-156.	2.6	47
26	Strengthening and toughening of extruded magnesium alloy rods by combining pre-torsion deformation with subsequent annealing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 650, 300-304.	2.6	46
27	Microstructural characterization and hardness variation of pure Ti surface-treated by pulsed laser. <i>Journal of Alloys and Compounds</i> , 2018, 741, 116-122.	2.8	45
28	Improving age hardening response and mechanical properties of a new Mg-RE alloy via simple pre-cold rolling. <i>Journal of Alloys and Compounds</i> , 2019, 777, 1375-1385.	2.8	45
29	Regulating precipitate orientation in Mg-Al alloys by coupling twinning, aging and detwinning processes. <i>Scripta Materialia</i> , 2019, 158, 131-135.	2.6	44
30	Observation and Schmid factor analysis of multiple twins in a warm-rolled Mg-3Al-1Zn alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 596, 41-44.	2.6	41
31	Twinning characteristic in tension of magnesium alloys and its effect on mechanical properties. <i>Materials and Design</i> , 2016, 107, 503-510.	3.3	40
32	Evolution of microstructure and grain boundary character distribution of a tin bronze annealed at different temperatures. <i>Materials Characterization</i> , 2016, 114, 204-210.	1.9	38
33	Effect of rolling speeds on texture modification and mechanical properties of the AZ31 sheet by a combination of equal channel angular rolling and continuous bending at high temperature. <i>Journal of Alloys and Compounds</i> , 2018, 768, 598-607.	2.8	37
34	Influence of different extrusion processes on mechanical properties of magnesium alloy. <i>Journal of Magnesium and Alloys</i> , 2014, 2, 220-224.	5.5	36
35	The different effects of twin boundary and grain boundary on reducing tension-compression yield asymmetry of Mg alloys. <i>Scientific Reports</i> , 2016, 6, 29283.	1.6	36
36	Strengthening and toughening austenitic steel by introducing gradient martensite via cyclic forward/reverse torsion. <i>Materials and Design</i> , 2018, 143, 150-159.	3.3	36

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37	Twinning characteristic and variant selection in compression of a pre-side-rolled Mg alloy sheet. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 614, 106-115.	2.6	35
38	Effects of precipitate type on twin/slip activity in ZK60 alloys and yield asymmetry. <i>Journal of Alloys and Compounds</i> , 2019, 792, 610-616.	2.8	35
39	$\beta_1 \rightarrow \beta_2$ Transformation characteristics revealed by pulsed laser-induced non-equilibrium microstructures in duplex-phase Zr alloy. <i>Science China Technological Sciences</i> , 2017, 60, 1255-1262.	2.0	34
40	Improvement in the strength of friction-stir-welded ZK60 alloys via post-weld compression and aging treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 712, 493-501.	2.6	34
41	Dependence of tensile and compressive deformation behavior on aging precipitation in rolled ZK60 alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 639, 724-731.	2.6	31
42	Annealing behavior of gradient structured copper and its effect on mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 702, 331-342.	2.6	31
43	Enhancing the creep resistance of AlN/Al nanoparticles reinforced Mg-2.85Nd-0.92Gd-0.41Zr-0.29Zn alloy by a high shear dispersion technique. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 755, 18-27.	2.6	29
44	Activation of multiple twins by pre-tension and compression to enhance the strength of Mg-Al-Zn alloy plates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 621, 100-104.	2.6	28
45	Forming limit of textured AZ31B magnesium alloy sheet at different temperatures. <i>Transactions of Nonferrous Metals Society of China</i> , 2011, 21, 836-843.	1.7	27
46	Improving Tensile and Compressive Properties of an Extruded AZ91 Rod by the Combined Use of Torsion Deformation and Aging Treatment. <i>Materials</i> , 2017, 10, 280.	1.3	27
47	The yield asymmetry and precipitation behavior of pre-twinned ZK60 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 652, 167-174.	2.6	26
48	Evaluating the orientation relationship of prismatic precipitates generated by detwinning in Mg alloys. <i>Acta Materialia</i> , 2020, 195, 263-273.	3.8	26
49	Dynamic tensile properties and microstructural evolution of extruded EW75 magnesium alloy at high strain rates. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 849-859.	5.5	25
50	Preparation and characterization of Mg alloy rods with gradient microstructure by torsion deformation. <i>Metals and Materials International</i> , 2016, 22, 887-896.	1.8	24
51	Influence of Torsion Deformation on Textures of Cold Drawing Pearlitic Steel Wires. <i>Acta Metallurgica Sinica (English Letters)</i> , 2015, 28, 707-714.	1.5	22
52	On the dynamic mechanical property and deformation mechanism of as-extruded Mg-Sn-Ca alloys under tension. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 664, 43-48.	2.6	22
53	Influence of basal slip activity in twin lamellae on mechanical behavior of Mg alloys. <i>Materials Letters</i> , 2016, 176, 147-150.	1.3	22
54	Crystallographic analysis on the activation of multiple twins in rolled AZ31 Mg alloy sheets during uniaxial and plane strain compression. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 652, 42-50.	2.6	22

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55	Tensile properties and microstructure of AZ31B magnesium alloy sheet processed by repeated unidirectional bending. Transactions of Nonferrous Metals Society of China, 2010, 20, 28-33.	1.7	20
56	Activating profuse pyramidal slips in magnesium alloys via raising strain rate to dynamic level. Journal of Alloys and Compounds, 2016, 688, 149-152.	2.8	20
57	Dynamic Recrystallization and Grain Refinement in Extruded AZ31 Rod During Hot Torsion Deformation at 150°C. Metals and Materials International, 2019, 25, 147-158.	1.8	20
58	Triaxial tension-induced damage behavior of nanocrystalline NiTi alloy and its dependence on grain size. Journal of Materials Science and Technology, 2021, 77, 90-99.	5.6	19
59	Effect of cold rolling on microstructure and mechanical property of extruded Mg-4Sm alloy during aging. Materials Characterization, 2016, 112, 81-86.	1.9	18
60	Strengthening or weakening texture intensity of Zr alloy by modifying cooling rates from $\hat{I} \pm \hat{I}^2$ region. Materials Chemistry and Physics, 2018, 213, 414-421.	2.0	18
61	Regulating Precipitates by Simple Cold Deformations to Strengthen Mg Alloys: A Review. Materials, 2019, 12, 2507.	1.3	18
62	Evaluation of the reliability of twin variant analysis in Mg alloys by in situ EBSD technique. Journal of Magnesium and Alloys, 2019, 7, 258-263.	5.5	17
63	Influence of microstructure and texture on formability of AZ31B magnesium alloy sheets. Transactions of Nonferrous Metals Society of China, 2011, 21, 844-850.	1.7	16
64	Tension-compression asymmetry of a rolled Mg-Y-Nd alloy. Metals and Materials International, 2017, 23, 683-690.	1.8	16
65	Dependence of Microstructure and Hardening Behavior on Torsion Strain and Strain Rate in Extruded AZ31 Rods. Advanced Engineering Materials, 2016, 18, 1683-1689.	2.6	16
66	Formation of profuse $c+a$ dislocations in deformed calcium-containing magnesium alloys. Philosophical Magazine Letters, 2016, 96, 249-255.	1.6	14
67	Evaluation of corrosion and wear resistance of friction stir welded ZK60 alloy. Science and Technology of Welding and Joining, 2017, 22, 601-609.	0.5	14
68	Influence of Torsion Route on the Microstructure and Mechanical Properties of Extruded AZ31 Rods. Advanced Engineering Materials, 2017, 19, 1700267.	1.5	14
69	Comparative study on twinning characteristics during two post-weld compression paths and their effects on joint enhancement. Scientific Reports, 2016, 6, 39779.	1.6	14
70	Microstructures and Mechanical Properties of Commercial Hot-Extruded Copper Processed by Torsion Deformation. Advanced Engineering Materials, 2016, 18, 1738-1746.	1.6	13
71	On the microstructure and mechanical property of as-extruded Mg-Gd-Y-Zn alloy with Sr addition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 679, 183-192.	1.6	13
72	On the microstructure and mechanical property of as-extruded Mg-Gd-Y-Zn alloy with Sr addition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 679, 183-192.	2.6	13

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73	Improving Strength and Formability of Rolled AZ31 Sheet by Two-Step Twinning Deformation. <i>Jom</i> , 2020, 72, 2551-2560.	0.9	13
74	The Effects of Annealing at Different Temperatures on Microstructure and Mechanical Properties of Cold-Rolled Al _{0.3} CoCrFeNi High-Entropy Alloy. <i>Metals</i> , 2021, 11, 940.	1.0	13
75	Microstructural and Textural Differences Induced by Water and Furnace Cooling in Commercially Pure Zr Annealed in the ϵ Region. <i>Metals and Materials International</i> , 2018, 24, 673-680.	1.8	12
76	Influence of extrusion ratio on microstructure and texture developments of high-temperature extruded AZ31 Mg alloy. <i>Science China Technological Sciences</i> , 2012, 55, 490-495.	2.0	11
77	Effect of Cu/Zn on microstructure and mechanical properties of extruded Mg-Sn alloys. <i>Materials Science and Technology</i> , 2016, 32, 1240-1248.	0.8	11
78	Effect of free-end torsion on microstructure and mechanical properties of AZ31 bars with square section. <i>Journal of Materials Science and Technology</i> , 2021, 69, 20-31.	5.6	11
79	Promoting hybrid twins structure to reduce yield asymmetry of rolled AZ31 plates by combining side-rolling and torsion. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 2096-2105.	5.5	11
80	Deformation bands in fully pearlitic steel during wire drawing. <i>Science China Technological Sciences</i> , 2014, 57, 796-803.	2.0	10
81	Tailoring the Microstructure and Mechanical Property of AZ80 Alloys by Multiple Twinning and Aging Precipitation. <i>Advanced Engineering Materials</i> , 2017, 19, 1700332.	1.6	10
82	Activations of stacking faults in the calcium-containing magnesium alloys under compression. <i>Journal of Alloys and Compounds</i> , 2017, 692, 898-902.	2.8	10
83	Enhanced Stretch Formability of AZ31 Magnesium Alloy Thin Sheet by Induced Precompression and Sequent Annealing. <i>Materials</i> , 2018, 11, 1401.	1.3	10
84	Microstructure and mechanical properties of (CrCoNi) ₉₇ Al _{1.5} Ti _{1.5} medium entropy alloy twisted by free-end-torsion at room and cryogenic temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 797, 140101.	2.6	10
85	Improving mechanical properties of an AZ91 alloy by properly combining aging treatment and torsion deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 779, 139156.	2.6	10
86	Mechanical behavior and microstructure evolution for extruded AZ31 sheet under side direction strain. <i>Progress in Natural Science: Materials International</i> , 2020, 30, 270-277.	1.8	10
87	Effect of Shear Strain Rate on Microstructure and Properties of Austenitic Steel Processed by Cyclic Forward/Reverse Torsion. <i>Materials</i> , 2019, 12, 506.	1.3	9
88	Evaluation of Twinning Behavior in Rolling of Mg Alloys with Three Kinds of Textures by a Generalized Schmid Factor. <i>Metals and Materials International</i> , 2020, 26, 1366-1372.	1.8	9
89	Effect of pre-rolling path on mechanical properties of rolled ZK60 alloys. <i>Transactions of Nonferrous Metals Society of China</i> , 2021, 31, 1322-1338.	1.7	9
90	Ultrastructure characterization of hydroxyapatite nanoparticles synthesized by EDTA-assisted hydrothermal method. <i>Journal of Materials Science</i> , 2009, 44, 4205-4209.	1.7	8

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91	Enhancing Thermal Conductivity of Mg-Sn Alloy Sheet by Cold Rolling and Aging. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 2356-2363.	1.2	8
92	Structure and properties of AZ31B magnesium alloy sheets processed by repeatedly unidirectional bending at different temperatures. <i>Transactions of Nonferrous Metals Society of China</i> , 2010, 20, 1815-1821.	1.7	7
93	Cold stamping for AZ31B magnesium alloy sheet of cell phone house. <i>Transactions of Nonferrous Metals Society of China</i> , 2010, 20, s608-s612.	1.7	7
94	Investigation of microstructures of laser surface-treated Zr702 sheet using electron channeling contrast imaging and electron backscatter diffraction techniques. <i>Surface and Coatings Technology</i> , 2016, 296, 13-19.	2.2	7
95	Bimodal plate structures induced by pulsed laser in duplex-phase Zr alloy. <i>Science China Technological Sciences</i> , 2017, 60, 587-592.	2.0	7
96	Influence of Aging Prior to Extrusion on the Microstructure and Mechanical Properties of an Extruded AZ91 Alloy. <i>Advanced Engineering Materials</i> , 2020, 22, 2000201.	1.6	7
97	Effects of porosity and crystallinity of glass ceramics on the <i>in vivo</i> bioactive response. <i>Biomedical Materials (Bristol)</i> , 2008, 3, 041001.	1.7	6
98	Influence of Torsion on Precipitation and Hardening Effects during Aging of an Extruded AZ91 Alloy. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 4403-4414.	1.2	6
99	Observation of Twin Transmission Process in Mg Alloys by In Situ EBSD. <i>Advanced Engineering Materials</i> , 2019, 21, 1801340.	1.6	6
100	Influence of texture distribution in magnesium welds on their non-uniform mechanical behavior: A CPFEM study. <i>Journal of Materials Science and Technology</i> , 2020, 46, 168-176.	5.6	6
101	Role of Al in the Solution Strengthening of Mg-Al Binary Alloys. <i>Metals</i> , 2022, 12, 84.	1.0	6
102	Influence of Wavy Bending on Microstructure and Mechanical Properties of a Rolled AZ31 Sheet. <i>Metals</i> , 2020, 10, 173.	1.0	5
103	Texture Related Inhomogeneous Deformation and Fracture Localization in Friction-Stir-Welded Magnesium Alloys: A Review. <i>Frontiers in Materials</i> , 2020, 6, .	1.2	5
104	Microstructure and properties of Al-coating on AZ31 magnesium alloy prepared by pack-cementation. <i>Transactions of Nonferrous Metals Society of China</i> , 2022, 32, 493-502.	1.7	5
105	The Size Dependent Deformation and Strengthening Mechanisms of Nanolayered Co/Ag Micropillars. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 5640-5649.	1.1	4
106	Effect of Hot Rolling and Annealing on Phase Component, Recrystallization, and Mechanical Properties of TC21 Titanium Alloy. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 2496-2508.	1.2	4
107	Four new orientation relationships of Mg ₁₇ Al ₁₂ phase with magnesium matrix in Mg-8Al-0.5Zn alloys. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 4689-4695.	5.5	4
108	Correlation between Boundary Misorientation and a Geometric Parameter for Cross-Boundary Twins in Mg Alloys. <i>Advanced Engineering Materials</i> , 2017, 19, 1600614.	1.6	3

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109	Revealing the Texture Evolution and Compressive Anisotropy in Free-End Twisted AZ31 Rods. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 1157-1166.	1.2	3
110	Coupling pre-aging treatment and side-rolling to improve the mechanical properties of AZ80 alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 779, 139158.	2.6	3
111	Influence of Various Precipitate Phases on Tensile Properties of an Extruded Mg-Y-Nd Alloy. <i>Materials Science Forum</i> , 2014, 788, 17-22.	0.3	2
112	Evaluation of Textural Effect on the Rollability of AZ31 Alloys by Wedge-Shaped Sample Design. <i>Advanced Engineering Materials</i> , 2017, 19, 1700035.	1.6	2
113	Facile synthesis of porous waist drum-like Fe_2O_3 nanocrystals as electrode materials for supercapacitor application. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 18777-18789.	1.1	2
114	Effect of Precipitates in Mg-Sm Alloys on Their Deformation Behavior and Yield Asymmetry. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	2
115	Dataset for microstructure and mechanical properties of (CrCoNi) ₉₇ Al _{1.5} Ti _{1.5} medium entropy alloy twisted by free-end-torsion at room and cryogenic temperatures. <i>Data in Brief</i> , 2020, 33, 106333.	0.5	1
116	Microstructural Evolution and Mechanical Behavior of AZ31 Magnesium Alloy Sheets with Li Addition. <i>Materials Science Forum</i> , 2015, 816, 399-403.	0.3	0
117	Analytical TEM Study of Biomineral Phases. , 2008, , .		0